Central Valley Regional Water Quality Control Board

# PUBLIC NOTICE
# CLOSURE OF ENVIRONMENTAL CASE

This will serve as notice that the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) is soliciting comments from the public regarding the pending closure of an environmental case located at 9880 Record Range Road, Redding, California.

**SUBJECT SITE:**
Record Range Training Facility, 9880 Record Range Road, Redding, Shasta County

**PUBLIC PARTICIPATION COMMENT PERIOD:**
19 March 2021 through 17 April 2021

**SUMMARY:**
The Central Valley Water Board currently regulates an environmental case at the subject property regarding fine particulate lead generated from firearm use at the Site. Shasta County Peace Officers Association (SCPOA) operates the Record Range, a cooperative law enforcement training facility located in an unincorporated area near the western boundary of the City of Redding. The property is zoned unclassified and maintains a commercial use. Developed sometime between 1952 and 1966, the Record Range includes a clubhouse and three shooting ranges, however only two of ranges are currently active. A powerline easement passes through the eastern portion of the property. This area is adjacent to the Mary Lake Subdivision. Runoff from the Site flows into Mary Lake, a man-made lake located approximately 1/4 mile to the east. Mary Lake outflow is to Jenny Creek, a tributary to the Sacramento River.

Since 2012, SCPOA and Central Valley Water Board staff have been working together to manage storm water runoff from the Record Range and to respond to community member complaints received between May and August 2015. These complaints pertained to water quality, lead concentrations in soil in the easement area, and Record Range activities. The complaints involve the regulatory jurisdiction of several agencies, including the Central Valley Water Board, Department of Toxic Substances Control (DTSC), and Shasta County.

*Storm Water Monitoring*

The Central Valley Water Board is the lead agency for storm water management and water quality investigations at the Record Range.

In 2016, SCPOA finalized a storm water management plan describing the best management practices (BMPs) within the Record Range that have been implemented to reduce the off-site transport of lead in storm water. These practices include directing runoff to reduce contact with lead in soil by using check dams, sand berms, and culverts. Small detention basins are also used to reduce the flow rate, which allows fine lead particles picked up by runoff to settle rather than being transported farther downstream.

Routine storm water sampling was initiated during the 2015/2016 wet season to assess the impacts, if any, that shooting range activities at the Record Range have on water quality. Central Valley Water Board staff formalized the storm water monitoring activities in a 13267 Monitoring and Reporting Program (MRP) issued in 2017. Storm water samples are collected at four locations: (1) immediately upstream of the Site, (2) immediately downstream of the Site at the culvert to the lower detention basin, (3) immediately west of the powerline easement at the outlet of the lower detention basin, and (4) downstream of the powerline road/property-line discharge point.

During the 2019/2020 wet season, storm water samples were collected in December 2019 (two separate events) and in January and March 2020. The 2019/2020 wet season sampling results were generally consistent with previous years. Turbidity concentrations were low, ranging from less than one to 67.6 nephelometric turbidity units. Most dissolved lead results were below the laboratory report limit [3.5 micrograms per liter (µg/L)]., including those measured at the property line discharge point. This laboratory reporting limit was less than the lowest applicable water quality objective. Total lead levels were relatively low in all samples but higher than corresponding dissolved levels. The highest lead concentrations and turbidity levels were detected in the inlet to the lower detention basin. In general, lead and turbidity levels deceased within the lower detention basin, indicating that the detention basin is successful at removing particulate lead and turbidity. The existing BMPs appear to be functioning as designed to reduce lead in storm water leaving the Record Range.

*Soil Investigation*

DTSC is the lead agency for matters related to soil. To assist DTSC, Central Valley Water Board staff oversaw a soil investigation to determine if elevated lead concentrations extend into the powerline easement area (between the east side of the shooting ranges and Mary Lake Subdivision). In May 2016, SCPOA conducted a soil investigation in the easement area and collected soil samples from 12 locations within the easement area and from four “background” locations. Each sample location was visually inspected for the presence of spent bullets and screened for in-place metals concentrations using a field instrument. To further evaluate soil concentrations,

individual soil samples were collected at each location and analyzed for lead, arsenic, copper, and zinc in an analytical laboratory.

The DTSC reviewed results of the soil investigation using standards set by the California Office of Environmental Health Hazard Assessment to determine safe levels of lead in soil. DTSC has set the safe level of lead in soil intended for unrestricted use as 80 milligrams per kilogram (mg/kg) and a safe level in soil intended for commercial use as 320 mg/kg. DTSC used these levels as "screening" criteria to determine if the Record Range, a commercial use, poses a potential risk to human health or the environment. Background lead concentrations in surface soils ranged from 16 to 64 mg/kg. Lead concentrations in surface soil samples obtained within the easement area ranged from 4.6 to 38 mg/kg except for a single sample obtained along the western boundary of the easement area which had a concentration of 103 mg/kg. Based on these results, DTSC concluded that there has not been a release of hazardous substances at levels which pose a risk to human health or the environment.

*Berm Breach*

In March 2019, Central Valley Water Board staff received a complaint from a resident located at Quinton Drive that debris had entered their property causing damage. Subsequently, Central Valley Water Board staff and SCPOA's consultant conducted a site inspection which identified a release from the Record Range's lower storm water detention basin. The detention basin berm had failed sometime between 25 and 28 February 2019 during a storm event. Approximately 200 cubic yards of solid material and 86,000 gallons of storm water were released to an unnamed drainage that flows to Mary Lake.

To determine if water quality was impacted due to the uncontrolled release of storm water and berm fill material, Central Valley Water Board staff collected water samples at the former outlet of the lower detention basin and downstream of the powerline road, at the property-line discharge point. The water samples were analyzed for total and dissolved lead and hardness. One sediment sample was collected downstream of the powerline road, at the property-line discharge point and analyzed for lead. Lead concentrations in the water samples were less than the lowest applicable water quality objective; at the property line total lead was detected at 1.58 µg/L and dissolved lead was detected at 1.07 µg/L. Lead was detected at 1.8 mg/kg in the sediment sample collected at the property line.

Between April 2019 and June 2020, SCPOA completed short-term and long-term corrective action at the Record Range and at downgradient areas impacted by the berm breach.

Short-Term Corrective Action. In April 2019, SCPOA's consultant inspected the City of Redding drainage inlets on Quinton Drive for sediment and surface debris from upstream of Brinn Drive to its outfall above Mary Lake. The drainage inlets were clear of sediment and debris. SCPOA's consultant collected stream-sediment samples at the

inlet and outlet of the City of Redding storm drain. The highest lead concentration in stream-sediment samples was 39 mg/kg.

SCPOA's consultant visually inspected residential properties between 4504 and 4594 Quinton Drive for berm sediment. SCPOA's consultant mapped berm sediment deposits and brush debris between the berm and the lower boundary of 4564 Quinton Drive, including 4564 Quinton Drive, 4594 Quinton Drive (the residential parcel nearest the berm breach), and the powerline easement area.

Eight soil samples were collected along the drainage ditch between the berm breach location and 4564 Quinton Drive and another three "background" samples were collected from in situ berm soil near the breach. All soil samples were analyzed for lead. The highest lead concentrations were detected at 140 and 320 mg/kg, respectively, which were collected from the residential property located at 4594 Quinton Drive. DTSC recommended screening level for lead in residential soil is 80 mg/kg.

In May 2019, sandbags were placed around the old spillway (now the lower detention basin discharge point) and upper portion of the berm channel.

Long-Term Corrective Action. In November 2019, the berm was stabilized by removing the former culvert spillway and grading the side slopes of the channel created by the erosion of the former culvert spillway.

In February 2020, additional sampling was conducted at 4594 Quinton Drive to assess soil lead concentrations. In June 2020, cleanup of the residential property was conducted under the direction of the property owner using a track-mounted excavator. Approximately 30 to 40 cubic yards of soil was removed from the property and placed at the Record Range. The excavated soils will remain at Record Range, in a stabilized area located away from drainage channels, and will not be used as the berm fill. The excavations were backfilled with clean fill and did not encroach on the drainage swale.

*Rationale for Closure*

Routine storm water sampling conducted between the 2015/2016 and 2019/2020 wet seasons indicates that lead concentrations measured in locations downstream of the shooting range have been less than the laboratory reporting limit 3.5 µg/L. This laboratory reporting limit was less than the lowest applicable water quality objective. Based on lead concentrations in soil samples obtained within the easement area, DTSC concluded that there has not been a release of hazardous substances at levels which pose a risk to human health or the environment. The 2019/2020 storm water sampling results demonstrate the effectiveness of the berm stabilization. Short-term and long-term corrective action has addressed downgradient impacts from the detention basin failure. The property located at 4594 Quinton Drive was cleaned up to the property owner's satisfaction.

Although the Site Cleanup Program case is proposed for closure, the Record Range will continue to be overseen by the Central Valley Water Board to ensure that BMPs

continue to operate effectively to protect downstream water quality. This is consistent with how shooting ranges are managed elsewhere in the region. The existing MRP for storm water sampling will remain in place after SCP case closure.

**WHERE DO I GET MORE INFORMATION?**
General information regarding the Site can be obtained from the State Water Resources Control Board's GeoTracker web site. (https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000008123)

All interested agencies, groups and persons wishing to comment on the pending case closure must provide these comments in writing. The comments should be submitted by **17 April 2021** to the Central Valley Water Board's office at 364 Knollcrest Drive, Suite 205, Redding, CA 96002. For information, please call Melissa Buciak at (530) 224-4854 or contact her by e-mail at Melissa.Buciak@waterboards.ca.gov.